

Title (en)  
ELECTRICAL POWER STEERING DEVICE

Title (de)  
ELEKTRISCHE SERVOLENKVORRICHTUNG

Title (fr)  
DISPOSITIF DE DIRECTION ASSISTÉE ÉLECTRIQUE

Publication  
**EP 3434559 A4 20191120 (EN)**

Application  
**EP 17850937 A 20170913**

Priority  
• JP 2016181912 A 20160916  
• JP 2016215848 A 20161104  
• JP 2017033114 W 20170913

Abstract (en)  
[origin: EP3434559A1] [Problem] An object of the present invention is to provide an electric power steering apparatus that achieves a manual steering even if a steering intervention is performed by a driver during an automatic steering, ensures more safety when a driver steers urgently, and enables both an assist control and a steering angle control. [Means for solving the problem] An electric power steering apparatus comprises a steering angle control section that calculates a steering angle control current command value for the steering angle control, and calculates the current command value using at least the steering angle control current command value; the steering angle control section comprises a position control section to calculate a basic steering angular velocity command value, a steering intervention compensating section to obtain a compensatory steering angular velocity command value, and a steering angular velocity control section to calculate a steering angle control current command value with the basic steering angular velocity command value, the compensatory steering angular velocity command value and an actual steering angular velocity; the steering intervention compensating section comprises a compensating map section having a steering intervention compensating map that determines a characteristic of the compensatory steering angular velocity command value to a steering torque, and obtains the compensatory steering angular velocity command value by the steering torque.

IPC 8 full level  
**B62D 6/00** (2006.01); **B62D 1/28** (2006.01); **B62D 5/04** (2006.01); **B62D 15/02** (2006.01); **G05B 11/36** (2006.01); **B62D 101/00** (2006.01); **B62D 113/00** (2006.01); **B62D 119/00** (2006.01); **B62D 137/00** (2006.01)

CPC (source: EP US)  
**B62D 1/286** (2013.01 - EP US); **B62D 5/0463** (2013.01 - US); **B62D 6/007** (2013.01 - EP US); **B62D 6/02** (2013.01 - US); **B62D 15/025** (2013.01 - EP US)

Citation (search report)  
• [A] US 2001054519 A1 20011227 - NISHIWAKI TAKESHI [JP], et al  
• [A] EP 2933169 A1 20151021 - NSK LTD [JP]  
• See references of WO 2018052036A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3434559 A1 20190130**; **EP 3434559 A4 20191120**; CN 109689478 A 20190426; JP 6428980 B2 20181128; JP WO2018052036 A1 20181011; US 10618552 B2 20200414; US 2019193782 A1 20190627; WO 2018052036 A1 20180322

DOCDB simple family (application)  
**EP 17850937 A 20170913**; CN 201780055644 A 20170913; JP 2017033114 W 20170913; JP 2018537871 A 20170913; US 201716095439 A 20170913